ABSTRACT OF THE DISCLOSURE

1   An objective is configured with a first partial

2   objective and a second partial objective. The first partial

3   objective, which projects a first field plane onto an

4   intermediate image, has a first, convex mirror and a second,

5   concave mirror. The second partial objective, which projects

6   the intermediate image onto a second field plane, has a third

7   and a fourth mirror, both concave. All of the four mirrors

8   have central mirror apertures. The axial distance between the

9   first and second mirrors is in a ratio between 0.95 and 1.05

10 relative to the distance between the second mirror and the

11 intermediate image. The axial distance Z_{M3-IM} between the third

12 mirror and the second field plane conforms to the relationship

13
$$0.03 \cdot Du_{M3} + 5.0 \text{ mm} < Z_{M3-IM} < \frac{0.25 \cdot Du_{M3}}{\tan(\arcsin(NA))}.$$

14 NA represents the numerical aperture NA in the second field

15 plane, and Du_{M3} represents the diameter of the third mirror.

16 The objective furthermore has a Petzval radius with an absolute

17 value larger than the distance between the first and second

18 field planes.

                    (Fig. 1A)